Appendix 13 Past, Present And Future Cumulative Impacts Summary

Section 15103 of the CEQA Guidelines requires that an EIR must identify potentially significant cumulative impacts. Cumulative impacts analysis allows for the joint assessment of past, present, and reasonably foreseeable future projects related to the proposed action.

Past, present, and foreseeable future projects in the area that may cause DFMP impacts to be significant cumulative impacts are generally limited to other logging activities, road construction, or development. The following is a comprehensive list of those past, present, and reasonably foreseeable projects that were taken into account in the DEIR for analysis of cumulative impacts:

Project References from May 2002 DEIR

(Sorted by major project category, and Past - Present - Reasonably Foreseeable Future Projects)

Timber Harvest Projects

PAST

Prior to the first harvests beginning in the 1860's, most of the Forest can be assumed to have been virgin old growth. A history of JDSF is included in Chapter 1 of the DFMP and in Section V of this document.

III, 3.0, pg 32

Historic harvest levels on JDSF since 1980 has been approximately 25 MMBF of redwood, Douglas-fir, and whitewood logs. The target level established in the 1983 Management Plan was 29 MMBF.

pg 43

Timber harvest from JDSF also fell during most of those years, both in absolute terms and as a proportion of the countywide timber harvest. Timber harvest in JDSF was 42,500 MBF in 1996, rising to 48,500 MBF in 1997, dropping again to 27,600 MBF in 1998, declining to 21,900 MBF in 1999 and then to 13,500 MBF in 2000. Court action limited the harvest in 2001.

In 1996, timber harvest from JDSF represented 17.60% of the total timber harvest in Mendocino County. That proportion fell to 11.32% in 1997, 9.7% in 1998, 5.93% in 1999, and 1.54% in 2000. A longer-term perspective is shown by reviewing the data from 1991 through 2000; during that period, timber harvest from JDSF accounted for 11.1% of timber harvest in Mendocino County.

VII, 1. pg 83

Scenic Integrity.

Because of the expanse of the JDSF, general lack of developed facilities, and buffering of views from popular forest roads, scenic integrity on the JDSF is relatively high. During the past decade, campgrounds, picnic areas, designated trails, and other high-use recreational areas



have been buffered from the visual impacts of even-aged timber management activity. Views of mature forest have generally been maintained adjacent to most of these locations. In addition, the spatial allocation of management systems has been designed to maintain forested views from much of Highway 20 and other popular travel corridors.

pg 153

Past timber operations included harvest of most of the merchantable down material.

pg 159

Over the past decade, even-aged management in JDSF has evolved to include retention of forest structure elements such as variable densities, live trees, and understory vegetation.

pg 160

Table 21 provides a summary of the silvicultural methods used by the Forest between 1980 and 1999.

PRESENT

III, 3.0, pg 32

Construction or reconstruction of roads is necessary to access certain harvest areas. Roads are occasionally decommissioned when timber harvests are complete. This timber is sold annually to bidders, harvested by local logging contractors, and is shipped to a number of sawmills throughout the redwood region and California.

pg 153

The designated old-growth groves are currently managed as non-harvest areas. Aggregations of residual old-growth trees and isolated individual old-growth trees have also been retained during recent timber harvesting except where trees were removed for safety reasons or to allow road construction.

pg 156

In keeping with the FPR mandate of maximum sustained production of high quality forest products and accounting for the needs of the various special concern areas, various silvicultural regimes are presently in use.

pg 159

Even-aged management on JDSF has involved one of three different types of even-aged forest structures: reserve-form stands, storied stands, and one-aged stands.

pg 161

Timber stand improvement practices are forest management activities that commonly occur during the life of a timber stand and may be used regardless of the silvicultural method used. FUTURE

pg 34

Timber sales and harvests would continue at a similar rate of three to five sales per year with an annual timber harvest rate of approximately 31 to 33 million board feet.



Harvesting in the Parlin Fork Management Area is expected to continue at current levels. This harvest is exempt from the THP requirements of the Forest Practice Act because the products manufactured from the harvested timber are used by state government and are not sold. (See the definition of "timber operations" in the Act, §4527.) However, all harvesting is planned or supervised by a CDF forester to ensure that operations meet the standards of the Forest Practice Act and Rules and are consistent with the Forest management plan.

pg 36

Timber Transport (Yarding and Hauling): Timber will be moved from harvest areas to trucks by ground-based (tractor) yarding on mild to moderately steep slopes, cable yarding on steeper slopes, and limited helicopter yarding for sensitive-soil areas or inaccessible areas. Logging pads would be graded in specified areas for staging of loaders, haul trucks, and other equipment and materials, including fuels. (DFMP, Page 71)

For further discussion, refer to Section VII-6.3 (Timber Resources).

3. pg 63

Alternative C (Management Consistent with the Draft Management Plan)

Alternative C describes an increased level of long-term sustained yield with enhanced demonstration capabilities. This alternative describes a timber management program based on determining and working towards a long-term desired future habitat, watershed, and growing stock condition. This alternative includes an average annual harvest level of 31 to 33 million board feet (based on a 10 year average) for the life of the management plan. This alternative has a conservation-oriented approach to management of wildlife and aquatic resources on a watershed basis. Use of watershed information and evaluation techniques is encouraged in the development and management of projects.

The desired future condition is developed in terms of maintaining a high level of timber production while actively maintaining and recruiting additional habitat needed for listed species and other species of concern. The alternative also includes a similar level or type of recreational use as Alternative B except that recreational corridors are envisioned adjacent to primary recreational sites. Management within the recreational corridors will emphasize demonstration values and aesthetics.

pg 159

The type of age-class structure to be created in most even-aged management compartments will be a combination of reserved-form and storied stand conditions.

pg 174

Short Term Harvest Schedule: The DFMP includes a short-term harvest schedule that identifies the locations of proposed harvest units and the general silvicultural treatments to be applied in the next five years (See Figure M in the attached "Figures" section). The short-term schedule identifies general areas that will be considered for harvest, and silvicultural methods that are consistent with the allocation plan discussed above. Actual harvest boundaries, yarding methods, road construction/reconstruction needs, etc. will be determined by a Registered



Professional Forester (RPF) following site specific review of the area. The short-term harvest schedule will not be rigid, but will be subject to modification through adaptive management. It will be reviewed and updated annually to maintain a five-year plan of future harvest activity.

pg 175

Areas Not Covered by this Silvicultural Allocation Plan: There are portions of the Forest not covered by this silvicultural spatial allocation plan that may have some limited timber harvesting. The three largest management compartments with no assigned silvicultural system are North Fork Caspar, South Fork Caspar, and the Mendocino Woodlands Special Treatment area.

A study to demonstrate and assess the accelerated development of late seral habitat will be considered for this area.

pg 182

The JDSF allowable harvest level in the DFMP is predicated on the goal of non-declining inventory levels where it is the intent to harvest less than growth in any 10 year rolling planning period. During the DFMP period, the Forest proposes to harvest an average of 31 to 33 million board feet per year in any 10-year rolling planning period.

pg 183

Implementation of the silvicultural allocation plan and short-term harvest schedule will create a diverse mosaic of forest age-class structures at the landscape level that will contribute to habitat stability, research opportunities, maintenance of biodiversity, and functional forest ecosystems.

pg 184

During the life of the Management Plan, no significant impact to the timber resource is anticipated as a result of the silvicultural allocation plan. The Forest has committed to a monitoring and adaptive management approach that includes timber inventories and evaluation of forest stands. If the monitoring program indicates that conifers are not regenerating in uneven-aged management areas, then management practices will be adapted. Table 25 summarizes the special concern areas within the Forest, the management activities proposed and the FPR standard.

pg 201

Sanitation/Salvage or other timber harvest operations would be the most likely response to a significant pest or disease outbreak on the Forest. Harvest operations would be considered a management activity of the Forest, and as such would be subject to all of the protection measures included in the Forest Management Plan. Furthermore, if the operations are a commercial operation, the activity would be subject to the FPRs and the THP review process. The protection measures in the Forest Management Plan and the THP review process would insure that no significant adverse environmental impacts would occur as a result of the activity.

pg 203

Sanitation/Salvage is a likely management practice in diseased (i.e., black stain of Douglas-fir) or insect infested stands. Treating areas of significant pest or disease outbreak is intended to improve forest health and timber production.



Watershed

PAST

pg 123

Fish populations can be extirpated from watercourses and watersheds if conditions degrade to a point the stocks are no longer self-sustainable. However, nearly two-thirds of the entire land base within the JDSF was clear-cut and burned prior to the introduction of the modern FPRs. Historic activities included massive broadcast burning, road construction and log skidding in watercourses, splash damming, stream clearing, and complete removal of riparian canopy. No effort was made to protect fish stocks at that time and populations did suffer.

pg 166

Table 22 indicates the acres of area harvested by yarding method between 1980 and 1999. Review of this table reveals a trend in the Forest management toward the increasing use of cable and helicopter yarding methods.

pg 167

Beginning in the 1870s, railroads were used to transport logs in some watersheds and railroad grades were located along or adjacent to streambeds.

pg 167

The 1983 plan indicated a need for about 55 miles of new road, mainly in the Noyo drainage, North Fork of Caspar Creek, and Fourteen Gulch (CDF 1983). Most of these proposed new roads have now been built.

pg 169

There are approximately 23 rock pits that have been historically used on JDSF. There has been no active quarrying within the past five or more years, except for small amounts (<100 cubic yards) of loose material taken from a couple of locations. Road surface rock used on the Forest has been brought in from off-site in recent years (personal communication, Marc Jameson 2002). It is not presently known how much the rock pits will be used in the future, but some level of need is anticipated.

pg 297

Through a largely inadvertent trial-and-error process over the past 50 to 60 years, forestland road building has evolved as the impacts associated with poorly located and constructed roads have become more evident (and watercourse protection has become more of a priority). The state-of-the-practice for road building, maintenance, and abandonment is compiled in Weaver and Hagans (1994); the techniques outlined in this handbook have been utilized at JDSF since its publication.

Road construction techniques on JDSF lands changed considerably through the 1980's and 1990's. This more recent construction has typically occurred as out-sloped ridge line spurs to accommodate long-reach skyline yarders.



Two results suggest that sediment inputs have been significantly reduced since inception of the modern Forest Practice Rules, which modernized the standards of forest management in 1974.

10.2.2

In 1998, peak flow studies on Caspar Creek....

pg 375

Selective tractor logging and roads along the stream in the South Fork prior to contemporary forest practices was shown to increase suspended sediment yields 2.4 times more than measured with clear cutting and cable logging operations in the North Fork that were implemented under the modern FPRs (Lewis 1998, Zeimer 2001).

pg 429

15.1.5 Roads Within and Adjacent to JDSF

The history of JDSF road system dates back to the first harvesting practices that took place within the Forest.

PRESENT

III 3.0, pg 32

Construction or reconstruction of roads is necessary to access certain harvest areas. Roads are occasionally decommissioned when timber harvests are complete. This timber is sold annually to bidders, harvested by local logging contractors, and is shipped to a number of sawmills throughout the redwood region and California.

pg 36

Construction or reconstruction of roads is necessary to access certain harvest areas. Roads are occasionally decommissioned when timber harvests are complete. This timber is sold annually to bidders, harvested by local logging contractors, and is shipped to a number of sawmills throughout the redwood region and California.

7.2.3, pg 295

Land management in this environment frequently results in increased rates of mass wasting, which typically leads to the production of loose sediment, much of which is transported to watercourses. A significant increase in sedimentation, especially its effect on fish-bearing streams, is the primary environmental impact associated with forestland management in northern California. As such, the potential for delivery of sediment to area watercourses is the most important potential geology-related impact of the proposed project.

pg 297

Erosion may also occur due to the development and use of campgrounds and conservation camps, which for the most part, represent the only "developments" within JDSF.



Table 39

Length of Roads On JDSF Lands, Based On GIS Roads Coverage*

10, pg 372

Watersheds

JDSF contains 48,652 acres. There are 15 planning watersheds, delineated and defined by CALWATER version 2.2, that contain portions of JDSF ownership. In some cases, the planning watersheds were aggregated into four hydrologic units called Watershed and Wildlife Assessment Areas (WWAA) to facilitate evaluation of larger areas (Figure 4, below); although an effort was made to keep analyses on a property wide basis, or by planning watershed. Timber resources were divided into West end (Western, Northern, and Southern WWAAs) and East end (Eastern WWAA) due to the distinctive difference of vegetative characteristics between the Western and Eastern ends of the property.

pg 373

TABLE 44

Characteristics of JDSF Planning Watersheds (PW) and WWAA

10.3.6, pg 378

The New McGuire Ranch supports about 80 cattle, and is upstream of JDSF lands in the headwaters of the South Fork Noyo River. The South Fork Noyo River is dammed at its headwaters, outside of JDSF, to provide a water source for the cattle. The Watershed Sanitary Survey prepared for the City of Fort Bragg's Water System (SHN 1995) rates the impact to water quality of grazing animals and other agricultural activities at Camp 19 as low.

10.3.7

Approximately 60 percent of the City of Fort Bragg water supply is drawn from an intake on the mainstem Noyo River approximately 2.5 miles downstream of the confluence with the South Fork Noyo River.

pg 379

Parlin Creek Conservation Camp is supplied by water pumped from an infiltration gallery 20 feet below the bed of the South Fork Noyo River, downstream of the confluence with Parlin Creek. The system takes about 8,000 gallons per day, and supplies 115 people. When turbidity is high, water is supplied from storage tanks. The maximum shut down period has been about five days. Chamberlain Creek Conservation Camp obtains most of its water for domestic use from a surface water source on a tributary of Chamberlain Creek. This system supplies water for 130 people. Mendocino Woodlands Camp is supplied by several in-stream collection points and springs located on JDSF property. In addition to these water supplies, there are 27 other listed water rights in or near JDSF, although they are not all actively used. They are mostly for domestic use and irrigation.



11.1.5 Surrounding Lands

Lands to the north and south of JDSF are classified as FL in the Mendocino County General Plan. Lands to the east of JDSF are classified as FL and RL. The Land Use Classifications for the west side of JDSF are RR, RMR, PS, and SW (Mendocino County, 1981 rev. 1983; (See Figure A in the attached Figures section).

FUTURE

pg 36

Timber Transport (Yarding and Hauling): Timber will be moved from harvest areas to trucks by ground-based (tractor) yarding on mild to moderately steep slopes, cable yarding on steeper slopes, and limited helicopter yarding for sensitive-soil areas or inaccessible areas. Logging pads would be graded in specified areas for staging of loaders, haul trucks, and other equipment and materials, including fuels. (DFMP, Page 71)

For further discussion, refer to Section VII-6.3 (Timber Resources).

6.0, pg 42

A new state park is funded and imminent for the area near lower Big River adjoining JDSF.

3. pg 63

Alternative C (Management Consistent with the Draft Management Plan)

Alternative C describes an increased level of long-term sustained yield with enhanced demonstration capabilities. This alternative describes a timber management program based on determining and working towards a long-term desired future habitat, watershed, and growing stock condition. This alternative includes an average annual harvest level of 31 to 33 million board feet (based on a 10 year average) for the life of the management plan. This alternative has a conservation-oriented approach to management of wildlife and aquatic resources on a watershed basis. Use of watershed information and evaluation techniques is encouraged in the development and management of projects.

pg 102

Forest roads on JDSF are used for timber harvesting, forest management activities, forest protection, public access, and recreation (DFMP, Appendix VI: Road Management Plan). Numerous studies have shown that forest roads are a major source of management-related stream sediment (Furniss et al. 1991). The Management Plan for JDSF includes a program to inventory and improve its road system. Additionally, the DFMP provides guidelines for new road construction. The objective of the Road Management Plan is to ensure that the design, construction, use, maintenance, and surfacing of all JDSF roads will minimize sediment delivery to aquatic habitats. Implementation of this plan will also improve air quality by reducing PM10 emissions from vehicle travel on unpaved roads.

Substandard roads with drainage and sediment production problems will be reconstructed, regraded, re-aligned, resurfaced, or otherwise treated to prevent sediment delivery to watercourses, or they will be abandoned properly.

Roads that are not in good condition will be properly abandoned.



The road upgrade component of the Road Management Plan will correct problem culverts and have a beneficial impact on fish migration and rearing habitat.

pg 124

The Road Management Plan will inventory and correct the road-related sediment problems and migration barriers associated with the road system. The hillslope management strategy, establishment of EEZs, and use of a CEG on THPs will reduce the amount of sediment generated from upslope harvesting operations.

pg 165

Almost all-future road construction on the Forest will be to access new landings to serve one of these three logging systems.

pg 167

The expected remaining roads necessary for the conduct of planned timber operations are secondary and temporary spur roads that will accommodate appropriate yarding and silvicultural systems.

pg 169

There are approximately 23 rock pits that have been historically used on JDSF. There has been no active quarrying within the past five or more years, except for small amounts (<100 cubic yards) of loose material taken from a couple of locations. Road surface rock used on the Forest has been brought in from off-site in recent years (personal communication, Marc Jameson 2002). It is not presently known how much the rock pits will be used in the future, but some level of need is anticipated.

pg 174

Short Term Harvest Schedule: The DFMP includes a short-term harvest schedule that identifies the locations of proposed harvest units and the general silvicultural treatments to be applied in the next five years (See Figure M in the attached "Figures" section). The short-term schedule identifies general areas that will be considered for harvest, and silvicultural methods that are consistent with the allocation plan discussed above. Actual harvest boundaries, yarding methods, road construction/reconstruction needs, etc. will be determined by a Registered Professional Forester (RPF) following site specific review of the area. The short term harvest schedule will not be rigid, but will be subject to modification through adaptive management. It will be reviewed and updated annually to maintain a five-year plan of future harvest activity.

pg 175

Areas Not Covered by this Silvicultural Allocation Plan:

There are portions of the Forest not covered by this silvicultural spatial allocation plan that may have some limited timber harvesting. The three largest management compartments with no assigned silvicultural system are North Fork Caspar, South Fork Caspar, and the Mendocino Woodlands Special Treatment area.

7.2.3, pg 295

Land management in this environment frequently results in increased rates of mass wasting, which typically leads to the production of loose sediment, much of which is transported to



watercourses. A significant increase in sedimentation, especially its effect on fish-bearing streams, is the primary environmental impact associated with forestland management in northern California. As such, the potential for delivery of sediment to area watercourses is the most important potential geology-related impact of the proposed project.

pg 304

Road Management Plan. "The intent of the Road Management Plan is to provide a systematic program to ensure that the design, construction, use, maintenance, surfacing and abandonment of the Forest's roads, landings, and road crossings will be conducted to avoid, minimize, or mitigate adverse impacts to aquatic habitats that support anadromous fish, amphibians, and other aquatic organisms." The Road Management Plan includes provisions for both the correct abandonment (i.e., "decommissioning") of older, legacy roads, as well as guidelines for the location and construction of new roads. As described above, roads within JDSF, particularly the older (pre-modern FPR) roads, contribute significant amounts of sediment to area watercourses. The proposed Road Management Plan is a principal element of the DFMPs efforts to reduce management-related sedimentation.

pg 305

Abandonment. Problem road areas will be mitigated and "properly" abandoned.

pg 306

Operational Implications of Watershed Analysis. Guidelines are included for improved management of roads, riparian zones, watercourses, and hillslopes.

pg 384

Limited new road construction is anticipated, and upgrading and formal abandoning of roads are goals of the plan.

pg 431

There are 150 miles of roads that could potentially be decommissioned.

The major area of the Forest that will require significant road development is the eastern third (upper Big River tributaries such as Chamberlain Creek, James Creek, and upper North Fork (NF) of Big River (Personal Communication, Marc Jameson). Road development will generally occur as forest plans are approved for sale. All road construction that is related to log hauling will be built in accordance with the guidelines in the FPR.

Road 200 is a potential candidate for road abandonment due to its "somewhat hazardous and potentially damaging inner gorge location" (DFMP, Page 86).

Fish and Wildlife

PAST

Prior to the first harvests beginning in the 1860's, most of the Forest can be assumed to have been virgin old growth. A history of JDSF is included in Chapter 1 of the DFMP and in Section V of this document.



Under State management, the JDSF has grown to include mature young-growth timber stands.

pg 11

Several research and demonstration programs have been conducted, planned or are currently underway at JDSF. These include studies addressing the effects of silviculture on timber stand development, timber harvest effects, watershed analysis, wildlife surveys, and wildlife habitat analysis. Appendix IV of the DFMP provides a listing and description of each project.

6., pg 107

For example, well-intentioned stream cleaning projects reduced the amount of available instream large woody debris (LWD) resulting in reductions in pool depth and cover complexity throughout a large portion of JDSF and elsewhere. In addition, prior to the introduction of modern FPR, tractors were allowed to build roads and yard logs within stream channels, which physically filled and altered habitats.

pg 109

Significant impact to form and function of stream channels located within JDSF boundaries has resulted from the widespread removal of LWD from low gradient (0-4 percent) stream channels from the 1950's to the early 1990's, splash damming, and riparian timber harvest.

4.1.3 pg 116

Maintained a weir and coho salmon egg-taking station in JDSF

pg 246

The marbled murrelet was listed largely because of the loss of older forests that serve as nesting habitat (Ralph et al. 1995, USFWS 1996b).

PRESENT

pg 10

Under State management, the JDSF has grown to include mature young-growth timber stands.

pg 11

Several research and demonstration programs have been conducted, planned or are currently underway at JDSF. These include studies addressing the effects of silviculture on timber stand development, timber harvest effects, watershed analysis, wildlife surveys, and wildlife habitat analysis. Appendix IV of the DFMP provides a listing and description of each project.

V. 2. pg 55

Surrounding Land Use

Lands to the north and south of JDSF are classified as Forest Lands (FL) in the Mendocino County General Plan. Lands to the east of JDSF are classified as FL and Range Land (RL). The Land Use Classifications for the west side of JDSF are Rural Residential (RR), Remote Residential (RMR), Public Service (PS) and Solid Waste Landfill (SW) (Mendocino County, 1981 rev. 1983). See Land Classification Map A in the attached Figures section. The greatest potential for conflict between JDSF and private landowners is in the Rural Residential areas



where harvesting practices on JDSF could indirectly impact the private lands. Examples of these impacts are aesthetics, loss of wildlife on the private lands, and noise impacts. General, assessment of biological conditions within an assessment area beyond the bounds of JDSF

4.1.3 pg 116

- USFS yearly electrofishing surveys in the North and South Forks of Caspar Creek documenting density, biomass, and distribution of fish and amphibians by habitat type during the early summer.
- CDFG trapping and counts of downstream juvenile migrant salmonids in mainstem Caspar Creek.

FUTURE

6.0, pg 42

A new state park is funded and imminent for the area near lower Big River adjoining JDSF.

3. pg 63

Alternative C (Management Consistent with the Draft Management Plan)

Alternative C describes an increased level of long-term sustained yield with enhanced demonstration capabilities. This alternative describes a timber management program based on determining and working towards a long-term desired future habitat, watershed, and growing stock condition. This alternative includes an average annual harvest level of 31 to 33 million board feet (based on a 10 year average) for the life of the management plan. This alternative has a conservation-oriented approach to management of wildlife and aquatic resources on a watershed basis. Use of watershed information and evaluation techniques is encouraged in the development and management of projects.

The desired future condition is developed in terms of maintaining a high level of timber production while actively maintaining and recruiting additional habitat needed for listed species and other species of concern. The alternative also includes a similar level or type of recreational use as Alternative B except that recreational corridors are envisioned adjacent to primary recreational sites. Management within the recreational corridors will emphasize demonstration values and aesthetics.

pg 110

Individual project stream and riparian protection and management measures will be determined on a site-specific basis and be designed to attain or maintain properly functioning condition as described above.

4.1.3 pg 116

Goal: Fish and Amphibian Populations. Maintain or improve current fish and amphibian populations on the Forest (high priority).



Mitigation 2: As part of a focused study project, assess for the potential of placing large wood into the Class I channel. Where assessments indicate that LWD levels are low and instream placement is feasible consider placement of unanchored log and/or rootwads in streams. Diversion potential will be inventoried and corrected as part of the Road Management Plan.

pg 120

The road upgrade component of the Road Management Plan will correct problem culverts and have a beneficial impact on fish migration and rearing habitat.

pg 123

Fish populations can be extirpated from watercourses and watersheds if conditions degrade to a point the stocks are no longer self-sustainable. However, nearly two-thirds of the entire land base within the JDSF was clear-cut and burned prior to the introduction of the modern FPRs.

Historic activities included massive broadcast burning, road construction and log skidding in watercourses, splash damming, stream clearing, and complete removal of riparian canopy. No effort was made to protect fish stocks at that time and populations did suffer.

pg 124

The Road Management Plan will inventory and correct the road-related sediment problems and migration barriers associated with the road system. The hillslope management strategy, establishment of EEZs, and use of a CEG on THPs will reduce the amount of sediment generated from upslope harvesting operations.

6.3.1, pg 150

Activities within the boundaries of JDSF began in 1862 with harvesting of the original stands......

pg 153

The designated old-growth groves are currently managed as non-harvest areas. Aggregations of residual old-growth trees and isolated individual old-growth trees have also been retained during recent timber harvesting except where trees were removed for safety reasons or to allow road construction.

Past timber operations included harvest of most of the merchantable down material.

pg 156

In keeping with the FPR mandate of maximum sustained production of high quality forest products and accounting for the needs of the various special concern areas, various silvicultural regimes are presently in use.

pg 159

Over the past decade, even-aged management in JDSF has evolved to include retention of forest structure elements such as variable densities, live trees, and understory vegetation. Even-aged management on JDSF has involved one of three different types of even-aged forest structures: reserve-form stands, storied stands, and one-aged stands.



The type of age-class structure to be created in most even-aged management compartments will be a combination of reserved-form and storied stand conditions.

pg 160

Table 21 provides a summary of the silvicultural methods used by the Forest between 1980 and 1999.

6.3.6, pg 171

Within the old-growth reserves, some actions such as understory burning or snag creation may be considered in order to simulate the kinds of natural disturbances that occur in and sustain old-growth forests.

pg 175

Areas Not Covered by this Silvicultural Allocation Plan: There are portions of the Forest not covered by this silvicultural spatial allocation plan that may have some limited timber harvesting. The three largest management compartments with no assigned silvicultural system are North Fork Caspar, South Fork Caspar, and the Mendocino Woodlands Special Treatment area.

A study to demonstrate and assess the accelerated development of late seral habitat will be considered for this area.

pg 177

Consideration for managing a large portion of the Special Treatment Area in order to accelerate recruitment of late seral habitat;

pg 178

Large old-growth trees and old trees with specific structural habitat value will be largely retained within managed stands.

Late seral forest characteristics will be managed for in the Mendocino Woodlands Special Treatment Area (2,224 acres located in the Lower North Fork Big River planning watershed excluding the Railroad Gulch Research Area).

pg 179

In the areas managed for late seral characteristics, timber harvesting and other stand treatments may be used in some instances to study and demonstrate methods to accelerate the development of late seral conditions. For example, thinning of understory trees might be prescribed to increase the growth rate of the larger trees or to stimulate the development of understory vegetation and multiple canopy layers. Single tree or group selection may be the appropriate silviculture system in certain stands to further the multi-storied effect, or to create openings found in late seral stand conditions. The determination of site specific silvicultural applications to achieve these goals will occur during THP preparation.

The following discussion is based on the conceptual changes that will occur following the selective harvest of an even-aged timber stand as found on JDSF.



The JDSF allowable harvest level in the DFMP is predicated on the goal of non-declining inventory levels where it is the intent to harvest less than growth in any 10 year rolling planning period. During the DFMP period, the Forest proposes to harvest an average of 31 to 33 million board feet per year in any 10-year rolling planning period.

pg 183

Implementation of the silvicultural allocation plan and short-term harvest schedule will create a diverse mosaic of forest age-class structures at the landscape level that will contribute to habitat stability, research opportunities, maintenance of biodiversity, and functional forest ecosystems.

6.6.1, pg 215

While lands owned by other entities occur and contribute to the occurrence and persistence of wildlife species associated with JDSF, the future management of these lands is unpredictable. For this reason, the quantitative assessment of changes in habitat condition is limited to JDSF lands.

pg 261

See protection measures to be implemented in future timber harvest projects for sake of wildlife (e.g. riparian, snags, logs, etc.).

Botanical

PAST

Prior to the first harvests beginning in the 1860's, most of the Forest can be assumed to have been virgin old growth. A history of JDSF is included in Chapter 1 of the DFMP and in Section V of this document.

pg 10

Under State management, the JDSF has grown to include mature young-growth timber stands.

PRESENT

pg 10

Under State management, the JDSF has grown to include mature young-growth timber stands.

FUTURE

pg 36

Vegetation Control: Noxious and invasive species will be controlled through physical removal and, at times, through the use of herbicides. Similar vegetation control measures are also planned to manage roadside vegetation for safety and fire containment or prevention. (DFMP, Pages 58 to 59)



Management activities that result in ground and/or vegetation disturbance would be subject to rare plant surveys. This includes, but is not limited to, timber harvest and timber stand improvement practices, road maintenance programs, prescribed fire, installation of shaded fuel breaks, campground maintenance or expansion, trail development, herbicide application and IWM activities.

pg 101

Prescribed burning may also be conducted for fire suppression or to mimic natural fire conditions.

Exotics

PAST

pg 322

Since 1997, the only herbicide use has been targeted treatments directed at the exotic weed, gorse. Approximately 600 individual plants have received a direct foliar application of Garlon 4 and Accord concentrate (Personal communication, William Baxter).

PRESENT

No project

FUTURE

pg 36

Vegetation Control: Noxious and invasive species will be controlled through physical removal and, at times, through the use of herbicides. Similar vegetation control measures are also planned to manage roadside vegetation for safety and fire containment or prevention. (DFMP, Pages 58 to 59)

pg 323

Herbicide use is anticipated in the following categories (Personal communication, William Baxter):

Protection (Incl. Cultural Resources)

PAST

9.2.2, pg 342

Later, when CDF staff inspected the site in the 1990s in conjunction with the replacement of a downstream culvert, it was noted that the pools were not filled with debris.



Data from the archaeological excavation conducted at a prehistoric site within JDSF and from the excavation of a coastal archaeological site (Layton 1990), indicates that the time depth of the JDSF prehistory extends back in time some 700 years, possibly predating the arrival of the Pomo to this area.

PRESENT

pg 102

Forest roads on JDSF are used for timber harvesting, forest management activities, forest protection, public access, and recreation (DFMP, Appendix VI: Road Management Plan). Numerous studies have shown that forest roads are a major source of management-related stream sediment (Furniss et al. 1991).

pg 355

Presently, routine road maintenance activities that have the potential to impact known archaeological sites have been suspended by CDF in accordance with a CEQA Categorical Exemption (Number 15301, Existing Facilities) submitted by JDSF and received by the State Clearinghouse on February 23, 2001. This Notice of Exemption states, "Project involves the operation and maintenance of existing facilities involving negligible or no expansion of existing use. 'Maintenance activities will be scheduled and conducted so as to avoid impacts to cultural ... resources."

FUTURE

pg 35

Fire Protection: The JDSF Management Plan proposes a comprehensive Fire Protection Plan with consideration to shaded fuel breaks, fuel thinning, prescribed burns, and creation of improved water storage or collection areas, and helispots. (DFMP, Pages 80 to 83)

pg 36

Vegetation Control: Noxious and invasive species will be controlled through physical removal and, at times, through the use of herbicides. Similar vegetation control measures are also planned to manage roadside vegetation for safety and fire containment or prevention. (DFMP, Pages 58 to 59)

pg 101

Prescribed burning may also be conducted for fire suppression or to mimic natural fire conditions.

pg 147

Management activities that result in ground and/or vegetation disturbance would be subject to rare plant surveys. This includes, but is not limited to, timber harvest and timber stand improvement practices, road maintenance programs, prescribed fire, installation of shaded fuel breaks, campground maintenance or expansion, trail development, herbicide application and IWM activities.



8.1.2, pg 318

Additional improvements proposed in the Forest include water tanks, water drafting sources, shaded fuel breaks, and helispot locations. Numerous fire prevention improvements would be put in place through the implementation of the DFMP. These improvements include, but are not limited to, water tanks, water sources, and helispot locations that are to be strategically placed within the Forest for the use of fire suppression and medical evacuation operations. All presuppression improvements will be constructed in compliance with appropriate CEQA documentation and disclosure.

The pre-suppression plan considers a system of shaded fuel breaks for construction in the Forest to serve as preplanned fire control lines when a wildfire escapes initial attack. They will be constructed in defendable areas along main ridges, adjacent to high-use roads, and adjacent to rural residential neighborhoods (DFMP, page 81).

8.1.3, pg 319

A prescribed fire program that focuses on these research goals would be implemented as resources allow (DFMP, page 82).

pg 347

It indicates that the Red Schoolhouse "appears eligible as separate property" and notes that it is slated for preservation.

pg 357

It is expected that the final plan will consider impacts on significant heritage resources under separate CEQA environmental review. Such planning will consider impacts to significant heritage resources and should coordinate development of new trails, recreational and visitor facilities with the interpretive program, to maximize public benefits and enjoyment of JDSF heritage resources and minimize risk for vandalism and looting.

Research and Demonstration

PAST

pg 11

Several research and demonstration programs have been conducted, planned or are currently underway at JDSF. These include studies addressing the effects of silviculture on timber stand development, timber harvest effects, watershed analysis, wildlife surveys, and wildlife habitat analysis. Appendix IV of the DFMP provides a listing and description of each project.

10.2.2

In 1998, peak flow studies on Caspar Creek....

pg 375

Selective tractor logging and roads along the stream in the South Fork prior to contemporary forest practices was shown to increase suspended sediment yields 2.4 times more than measured with clear cutting and cable logging operations in the North Fork that were implemented under the modern FPRs (Lewis 1998, Zeimer 2001).



PRESENT

pg 11

Several research and demonstration programs have been conducted, planned or are currently underway at JDSF. These include studies addressing the effects of silviculture on timber stand development, timber harvest effects, watershed analysis, wildlife surveys, and wildlife habitat analysis. Appendix IV of the DFMP provides a listing and description of each project.

FUTURE

pg 33

Within approximately 10 years, a Forest Learning Center and an Interpretive Center is envisioned. These facilities, if developed, would be subject to separate environmental reviews when more information is known regarding funding, timing, size, and location.

pg 34

Harvesting in the Parlin Fork Management Area is expected to continue at current levels. This harvest is exempt from the THP requirements of the Forest Practice Act because the products manufactured from the harvested timber are used by state government and are not sold. (See the definition of "timber operations" in the Act, §4527.) However, all harvesting is planned or supervised by a CDF forester to ensure that operations meet the standards of the Forest Practice Act and Rules and are consistent with the Forest management plan.

pg 37

Many demonstration and research activities, to the degree they are effectively implemented and the information is disseminated, will undoubtedly result in actions to improve environmental resource conservation and protection on a level that transcends the JDSF itself. These beneficial off-site actions, although difficult to quantify, are also considered as part of this EIR.

pg 119

Mitigation 2: As part of a focused study project, assess for the potential of placing large wood into the Class I channel. Where assessments indicate that LWD levels are low and instream placement is feasible consider placement of unanchored log and/or rootwads in streams.

pg 175

Areas Not Covered by this Silvicultural Allocation Plan: There are portions of the Forest not covered by this silvicultural spatial allocation plan that may have some limited timber harvesting. The three largest management compartments with no assigned silvicultural system are North Fork Caspar, South Fork Caspar, and the Mendocino Woodlands Special Treatment area.

A study to demonstrate and assess the accelerated development of late seral habitat will be considered for this area.

pg 179

In the areas managed for late seral characteristics, timber harvesting and other stand treatments may be used in some instances to study and demonstrate methods to accelerate the



development of late seral conditions. For example, thinning of understory trees might be prescribed to increase the growth rate of the larger trees or to stimulate the development of understory vegetation and multiple canopy layers. Single tree or group selection may be the appropriate silviculture system in certain stands to further the multi-storied effect, or to create openings found in late seral stand conditions. The determination of site specific silvicultural applications to achieve these goals will occur during THP preparation.

pg 183

Implementation of the silvicultural allocation plan and short-term harvest schedule will create a diverse mosaic of forest age-class structures at the landscape level that will contribute to habitat stability, research opportunities, maintenance of biodiversity, and functional forest ecosystems.

pg 357

It is expected that the final plan will consider impacts on significant heritage resources under separate CEQA environmental review. Such planning will consider impacts to significant heritage resources and should coordinate development of new trails, recreational and visitor facilities with the interpretive program, to maximize public benefits and enjoyment of JDSF heritage resources and minimize risk for vandalism and looting.

14.3.1

pg 417

Two major facility developments are proposed that will likely increase recreation use of the JDSF. These are:

- a Forest Learning Center to include lodging, conference center, classrooms, a resource and research library, research lab, video conferencing, and administrative offices; and
- a JDSF Interpretive Center to be developed in conjunction with the Forestry Learning Center.

Recreation

PAST

No project

PRESENT

pg 34

Recreation activities also include maintenance and use of existing, improved recreational facilities.

3.2.2

Recreational travel is also significant. Nearly half of the 12,200 camping days annually are attributed to Mendocino County residents.



All roads generally feed Highway 20 (which runs east/west through the Forest), Highway 1, and Highway 101. Highway 20 also connects to Interstate 5 at Williams located approximately 95 road miles east of Willits. County Roads also receive traffic generated from JDSF. (DFMP, Pages 25 & 35)

pg 56

Forest Uses

The public also utilizes JDSF as an important recreational resource. There are over 60 individual campsites, many miles of riding and hiking trails, and over 200 miles of forest road utilized by the public. Maintenance of these facilities is an important management component. Other common recreational activities conducted on the Forest include picnicking, hunting, swimming, wildlife viewing, and target shooting. The Forest is also a local source of firewood and other minor forest products such as mushrooms and greenery for both personal and commercial use.

FUTURE

pg 34

Recreation Use: The JDSF Management Plan calls for modest increases in recreational uses and facilities. These generally include improvements to existing campgrounds, trails and access roads, and development of small new accessory facilities, such as trails, adjacent to existing recreational areas. Consideration is also being given to the reopening certain historically used campsites. (DFMP, Pages 76 to 77)

6.0

pg 42

A new state park is funded and imminent for the area near lower Big River adjoining JDSF.

pg 147

Management activities that result in ground and/or vegetation disturbance would be subject to rare plant surveys. This includes, but is not limited to, timber harvest and timber stand improvement practices, road maintenance programs, prescribed fire, installation of shaded fuel breaks, campground maintenance or expansion, trail development, herbicide application and IWM activities.

pg 297

Erosion may also occur due to the development and use of campgrounds and conservation camps, which for the most part, represent the only "developments" within JDSF.

14.3.1, pg 417

In cooperation with the California Department of Parks and Recreation, establish forest management demonstration areas compatible with recreation for educational purposes adjacent to the Mendocino Woodlands Outdoor Center and the Pygmy Forest Reserve.



Specific management actions that are proposed in the DFMP that would increase recreation access and use are:

- Improving Camp Host sites.
- Improving individual campsites with native vegetation where necessary to enhance privacy and reduce compaction. Vehicle parking areas will be rocked to limit vehicle travel within each campsite.
- Improving each campground with a functional fire/barbecue pit, picnic table and vault toilet.
- Restoring the historic Little Red Schoolhouse located at Camp 20. Hours of operation
 will be determined based on the public's interest and availability of volunteers to assist
 in staffing the building
- Upgrading road surfaces on heavily-used recreational roads in order to limit erosion, protect water quality and provide safe driving conditions.
- Maintaining and keeping up-to-date a map that includes recreational facilities, points of
 interest, and main access roads as well as general information concerning the Forest.
 This map would be available to the public without charge.
- Developing route maps for mountain biking and equestrian access.
- Treating day-use areas, campgrounds, and picnic areas as necessary to reduce fire hazards for safety and demonstration purposes.
- Maintaining major roads and trails in the Forest to provide access for fire protection purposes.
- Provide a system of road signing.

Two major facility developments are proposed that will likely increase recreation use of the JDSF. These are:

- A Forest Learning Center to include lodging, conference center, classrooms, a resource and research library, research lab, video conferencing, and administrative offices; and
- A JDSF Interpretive Center to be developed in conjunction with the Forestry Learning Center.

pg 419

Trail Expansion: Additional designated trails that will be considered include: a loop trail for linking the Trestle Trail to Indian Springs (a hike-in campsite), a trail linking various parts of the Forest; an access trail designed for those with disabilities; and a trail through the Upper James Creek Grove. During the planning period, expansion of the system will be implemented only to the extent that staffing and funding allow.

Projects Beyond Boundaries of JDSF

P	Δ	S	Г

No project



PRESENT

Actions Not Evaluated as Part of This EIR.

Two conservation camps housing inmates of the State correctional system (Parlin Fork and Chamberlain Creek) are located within JDSF. CDF has authority over these areas, which total 43 acres. JDSF has no management authority over these camps and they are not within the scope of the JDSF Management Plan, other than limited discussion regarding the impacts of forest management on camp operations.

pg 38

The Pacific Gas and Electric Company maintains a power line right-of-way running through JDSF generally parallel to Highway 20. In addition, California Department of Transportation (Caltrans) maintains the Highway 20 right-of-way. These areas are not within the control of CDF. While the utilities and the Highway are part of the area setting, PG&E or Caltrans actions regarding these facilities are not within the scope of the JDSF Management Plan.

V. 2. pg 55

Surrounding Land Use

Lands to the north and south of JDSF are classified as Forest Lands (FL) in the Mendocino County General Plan. Lands to the east of JDSF are classified as FL and Range Land (RL). The Land Use Classifications for the west side of JDSF are Rural Residential (RR), Remote Residential (RMR), Public Service (PS) and Solid Waste Landfill (SW) (Mendocino County, 1981 rev. 1983). See Land Classification Map A in the attached Figures section. The greatest potential for conflict between JDSF and private landowners is in the Rural Residential areas where harvesting practices on JDSF could indirectly impact the private lands. Examples of these impacts are aesthetics, loss of wildlife on the private lands, and noise impacts.

pg 108

General, assessment of biological conditions within an assessment area beyond the bounds of JDSF

10. pg 372

Watersheds

JDSF contains 48,652 acres. There are 15 planning watersheds, delineated and defined by CALWATER version 2.2, that contain portions of JDSF ownership. In some cases, the planning watersheds were aggregated into four hydrologic units called Watershed and Wildlife Assessment Areas (WWAA) to facilitate evaluation of larger areas (Figure 4, below); although an effort was made to keep analyses on a property wide basis, or by planning watershed. Timber resources were divided into West end (Western, Northern, and Southern WWAAs) and East end (Eastern WWAA) due to the distinctive difference of vegetative characteristics between the Western and Eastern ends of the property.

pg 373

TABLE 44 Characteristics of JDSF Planning watersheds (PW) and WWAA



10.3.6, pg 378

The New McGuire Ranch supports about 80 cattle, and is upstream of JDSF lands in the headwaters of the South Fork Noyo River. The South Fork Noyo River is dammed at its headwaters, outside of JDSF, to provide a water source for the cattle. The Watershed Sanitary Survey prepared for the City of Fort Bragg's Water System (SHN 1995) rates the impact to water quality of grazing animals and other agricultural activities at Camp 19 as low.

10.3.7

Approximately 60 percent of the City of Fort Bragg water supply is drawn from an intake on the mainstem Noyo River approximately 2.5 miles downstream of the confluence with the South Fork Noyo River.

pg 379

Parlin Creek Conservation Camp is supplied by water pumped from an infiltration gallery 20 feet below the bed of the South Fork Noyo River, downstream of the confluence with Parlin Creek. The system takes about 8,000 gallons per day, and supplies 115 people. When turbidity is high, water is supplied from storage tanks. The maximum shut down period has been about five days. Chamberlain Creek Conservation Camp obtains most of its water for domestic use from a surface water source on a tributary of Chamberlain Creek. This system supplies water for 130 people. Mendocino Woodlands Camp is supplied by several in-stream collection points and springs located on JDSF property. In addition to these water supplies, there are 27 other listed water rights in or near JDSF, although they are not all actively used. They are mostly for domestic use and irrigation.

pg 388

11.1.5 Surrounding Lands

Lands to the north and south of JDSF are classified as FL in the Mendocino County General Plan. Lands to the east of JDSF are classified as FL and RL. The Land Use Classifications for the west side of JDSF are RR, RMR, PS, and SW (Mendocino County, 1981 rev. 1983; (See Figure A in the attached Figures section).

FUTURE

pg 33

Two types of actions can result from adoption of the JDSF Management Plan. On-site actions are the most common. They are more readily identifiable and quantifiable. Off-site actions may also occur such as those due to the hauling of forest products for off-site processing. Important, but often overlooked, off-site actions also result from the application of forest demonstration practices to other areas. Increasingly, demonstration practices emphasize innovative research for protection of the environment.

pg 37

Many demonstration and research activities, to the degree they are effectively implemented and the information is disseminated, will undoubtedly result in actions to improve environmental resource conservation and protection on a level that transcends the JDSF itself. These beneficial off-site actions, although difficult to quantify, are also considered as part of this EIR.



Several off-site, indirect actions related to the processing of JDSF forest products will also occur (i.e., use of new or existing mills, hauling and use of lumber, etc.) The location and types of action vary based on market conditions, desires of the timber sale buyers and operators, and the type of product being processed. These linked but distantly related actions are too speculative to warrant evaluation pursuant to CEQA (CCR §15064).

6.6.1, pg 215

While lands owned by other entities occur and contribute to the occurrence and persistence of wildlife species associated with JDSF, the silvicultural management of these lands in terms of silvicultural method as well as temporal and spatial relationship is speculative..

pg 261

See protection measures to be implemented in future timber harvest projects for sake of wildlife (e.g. riparian, snags, logs, etc.).

pg 411

14.3.1, pg 417

In cooperation with the California Department of Parks and Recreation, establish forest management demonstration areas compatible with recreation for educational purposes adjacent to the Mendocino Woodlands Outdoor Center and the Pygmy Forest Reserve.

Traffic

PAST

15.1.3, pg 428

A chip sealed resurfacing project has recently been completed on a number of roads near the western boundary of the Forest. The roads that were improved include Mitchell Creek Road, Franklin Road, Turner Road, and the cul-de-sacs off Turner Road, Emerald Drive, Amethyst Drive, and Jade Drive.

pg 429

15.1.5 Roads Within and Adjacent to JDSF

The history of JDSF road system dates back to the first harvesting practices that took place within the Forest.

PRESENT

pg 431

Recreational travel is also significant. Nearly half of the 12,200 camping days annually are attributed to Mendocino County residents.

All roads generally feed Highway 20 (which runs east/west through the Forest), Highway 1, and Highway 101. Highway 20 also connects to Interstate 5 at Williams located approximately



95 road miles east of Willits. County Roads also receive traffic generated from JDSF. (DFMP, Pages 25 & 35)

FUTURE

pg 36

Timber Transport (Yarding and Hauling): Timber will be moved from harvest areas to trucks by ground-based (tractor) yarding on mild to moderately steep slopes, cable yarding on steeper slopes, and limited helicopter yarding for sensitive-soil areas or inaccessible areas. Logging pads would be graded in specified areas for staging of loaders, haul trucks, and other equipment and materials, including fuels. (DFMP, Page 71)

3.2.2 Potential Off-site Actions

15., pg 426

Due to the expected continued heavy use of this primary highway, the entire route should be upgraded to full freeway standards as rapidly as possible. The direction of work should begin at the County's southern boundary and continue northward.

Highway 20 is a two-lane highway except for a 0.6 miles four-lane section (Mendocino County General Plan, Section III Circulation Element, page 2). According to the General Plan, the only proposed Level of Service for this Route is that it should be improved and upgraded. Safe two-lane standards with truck turnouts of reasonable length should be implemented.

A project that is not mentioned in the Circulation Element but is being considered by the Mendocino Department of Transportation is for the installation of a diversion on Highway 20 to reach the Brooketrails Subdivision, located northwest of Willits (Personal Communication, Doug Ellinger January 23 and 24).

15.1.3, pg 428

The Mendocino Department of Transportation has plans for a bikeway improvement project located at the intersection of Highway 1 and road 408 east for approximately 3.0 miles, to the junction of road 408 and a private road (Personal Communication, Doug Ellinger).

The only other County Road that may be proposed for minor improvement is road 410 (Caspar Orchard Road). This is a low volume road located within the southwest portion of the Forest, generally north of road 408. Minor improvements may consist of filling potholes and improving shoulders and turnouts.

Caltrans has proposed a few projects within the vicinity of JDSF. The following is a list of the potential road activities that may occur along the route within the next five years (personal communication with Lana Ashley, Caltrans Project Manager for middle Mendocino County and personal communication with Doris Alkebulum, Caltrans Project Manager for Lake County and Portions of Mendocino County):

- a left turn lane to be installed from mile-post 0.90 (east of Fort Bragg) to mile-post 2.3, just west of JDSF;
- culvert replacements at various locations;
- a passing lane that is within the boundary of JDSF has been proposed;



- a passing lane, the location of which has not yet been determined (the project has not been submitted for funding approval); and
- electronic changeable message road signs located at mile markers 0.30 and 3.56.

There are 150 miles of roads that could potentially be decommissioned.

The major area of the Forest that will require significant road development is the eastern third (upper Big River tributaries such as Chamberlain Creek, James Creek, and upper North Fork (NF) of Big River (Personal Communication, Marc Jameson). Road development will generally occur as forest plans are approved for sale. All road construction that is related to log hauling will be built in accordance with the guidelines in the FPR.

Road 200 is a potential candidate for road abandonment due to its "somewhat hazardous and potentially damaging inner gorge location" (DFMP, Page 86).

Off-site Timber Transport and Recreational Travel: Logging trucks would utilize the surrounding public road network for hauling logs to processing facilities as determined by the contract operator or buyer. Private off-site roads could be used subject to needs and agreements from the access right holders.

Herbicide Use

PAST

pg 162

JDSF has effectively used herbicides for brush control following broadcast burning, hardwood control, road maintenance needs, and to treat exotics. Herbicide application is accomplished with ground techniques such as truck-mounted sprayers, backpack sprayers, and hack-and-squirt methods, aerial application has not been used. The use of herbicides on the Forest has declined in recent years, but some level of herbicide use will likely be desired for brush control through the DFMP period. The use of broadcast burning following logging has been dropped since 1993 in an effort to reduce the use of herbicides. It is anticipated that a combination of control methods will occur, and the preferred method(s) of choice of brush control will be determined at the project level.

pg 322

Since 1997, the only herbicide use has been targeted treatments directed at the exotic weed, gorse. Approximately 600 individual plants have received a direct foliar application of Garlon 4 and Accord concentrate (Personal communication, William Baxter).

PRESENT

No project



FUTURE

pg 36

Vegetation Control: Noxious and invasive species will be controlled through physical removal and, at times, through the use of herbicides. Similar vegetation control measures are also planned to manage roadside vegetation for safety and fire containment or prevention. (DFMP, Pages 58 to 59)

pg 147

Management activities that result in ground and/or vegetation disturbance would be subject to rare plant surveys. This includes, but is not limited to, timber harvest and timber stand improvement practices, road maintenance programs, prescribed fire, installation of shaded fuel breaks, campground maintenance or expansion, trail development, herbicide application and IWM activities.

pg 162

JDSF has effectively used herbicides for brush control following broadcast burning, hardwood control, road maintenance needs, and to treat exotics. Herbicide application is accomplished with ground techniques such as truck-mounted sprayers, backpack sprayers, and hack-and-squirt methods, aerial application has not been used. The use of herbicides on the Forest has declined in recent years, but some level of herbicide use will likely be desired for brush control through the DFMP period. The use of broadcast burning following logging has been dropped since 1993 in an effort to reduce the use of herbicides. It is anticipated that a combination of control methods will occur, and the preferred method(s) of choice of brush control will be determined at the project level.

pg 323

Herbicide use is anticipated in the following categories (Personal communication, William Baxter):

Aesthetics

PAST

VII, 1. pg 83

Scenic Integrity

Because of the expanse of the JDSF, general lack of developed facilities, and buffering of views from popular forest roads, scenic integrity on the JDSF is relatively high. During the past decade, campgrounds, picnic areas, designated trails, and other high-use recreational areas have been buffered from the visual impacts of even-aged timber management activity. Views of mature forest have generally been maintained adjacent to most of these locations. In addition, the spatial allocation of management systems has been designed to maintain forested views from much of Highway 20 and other popular travel corridors.



PRESENT

VII, 1. pg 83

Cultural modifications that disrupt the scenic integrity of the JDSF are:

- The PG&E transmission line corridor paralleling Highway 20 that has a right-of-way cleared of tall vegetation and with an edge that starkly contrasts with the surrounding forest.
- Forest areas harvested under an even-aged management prescription located near popularly-traveled forest roads and particularly Roads 408 and 500.
- Numerous illegal dumps located along the Forest road system.
- Abandoned quarry sites that have not been reclaimed and/or used for unauthorized target shooting.
- Two conservation camp facilities.

FUTURE

pg 65 Table 6

VII, 1. pg 83

Scenic Integrity

Because of the expanse of the JDSF, general lack of developed facilities, and buffering of views from popular forest roads, scenic integrity on the JDSF is relatively high. During the past decade, campgrounds, picnic areas, designated trails, and other high-use recreational areas have been buffered from the visual impacts of even-aged timber management activity. Views of mature forest have generally been maintained adjacent to most of these locations. In addition, the spatial allocation of management systems has been designed to maintain forested views from much of Highway 20 and other popular travel corridors.

pg 92

Developments proposed within the DFMP that could involve lighting or glare are the Forest Learning Center and Forest Interpretive Center. As presented in the DFMP, these proposals are conceptual and would be subject to subsequent environmental review.

Air Quality

PAST

No project

PRESENT

pg 102

Forest roads on JDSF are used for timber harvesting, forest management activities, forest protection, public access, and recreation (DFMP, Appendix VI: Road Management Plan). Numerous studies have shown that forest roads are a major source of management-related



stream sediment (Furniss et al. 1991). The Management Plan for JDSF includes a program to inventory and improve its road system. Additionally, the DFMP provides guidelines for new road construction. The objective of the Road Management Plan is to ensure that the design, construction, use, maintenance, and surfacing of all JDSF roads will minimize sediment delivery to aquatic habitats. Implementation of this plan will also improve air quality by reducing PM10 emissions from vehicle travel on unpaved roads.

pg 103

The largest source of PM10 emissions on JDSF is from vehicle and equipment travel on unpaved roads and other unpaved areas. Slash burning represents the second largest source of PM10 emissions but the magnitude of these emissions is substantially less than from unpaved road dust.

FUTURE

pg 102

Forest roads on JDSF are used for timber harvesting, forest management activities, forest protection, public access, and recreation (DFMP, Appendix VI: Road Management Plan). Numerous studies have shown that forest roads are a major source of management-related stream sediment (Furniss et al. 1991). The Management Plan for JDSF includes a program to inventory and improve its road system. Additionally, the DFMP provides guidelines for new road construction. The objective of the Road Management Plan is to ensure that the design, construction, use, maintenance, and surfacing of all JDSF roads will minimize sediment delivery to aquatic habitats. Implementation of this plan will also improve air quality by reducing PM10 emissions from vehicle travel on unpaved roads.

Substandard roads with drainage and sediment production problems will be reconstructed, regraded, re-aligned, resurfaced, or otherwise treated to prevent sediment delivery to watercourses, or they will be abandoned properly.

Roads that are not in good condition will be properly abandoned.

pg 104

Open burning, which may occur during the winter month, would be managed and conducted in accordance with the California Forest Practice Rules and in compliance with the MCAQMD open burning regulations.

pg 105

Roadway emissions would be minimized by implementation of the proposed Road Management Plan which would potentially reduce the number of traveled roads, increase maintenance of existing and new roads, surface existing and new roads intended for year-round log hauling, and implement a dust control program for roads. Emissions from burning activities are not expected to increase significantly.



Projects From May 2002 DEIR Appendixes

Appendix 4:

- PRESENT TIMBER ... pg 2 ... "JDSF currently produces an annual timber harvest of approximately 29 million board feet of redwood, Douglas-fir, and whitewood logs. This timber is sold annually to bidders, harvested by local logging contractors, and is shipped to a number of sawmills throughout the redwood region and California. Substantial numbers of jobs are produced by this timber management activity, as well as tax revenues."
- PRESENT RECREATION ... pg 2 ... "This publicly owned forest is also utilized as an important recreational resource by local citizens, travelers, and vacationers from throughout the County, State, and country. There are over 60 individual campsites, many miles of riding and hiking trails, and over 200 miles of forest road utilized by the public. Other common recreational activities conducted on the Forest include picnicking, hunting, swimming, wildlife viewing, and target shooting. [Miscellaneous] The Forest is also an important local source of firewood and other minor forest products such as mushrooms and greenery for both personal and commercial use."
- FUTURE ALL ... pg 3 ... "Forest management and timber harvesting activities, recreational activities, forest management demonstrations, and collection of minor forest products,"

Appendix 8:

- PAST RESEARCH ... 8A.III ... pg 8A-19 ... "the Caspar Creek Cutting Trials (CCCT) were established in 1959-62. These trials set out five separate blocks that included two tests of single tree selection (33 acres), group selection (21 acres), a clearcut (14 acres), and an uncut (5 acres)." ... "Shortly after the CCCT was installed the JDSF partially logged the entire drainage of the Caspar Creek South Fork to study its hydrology." ... "The second study of the CCCT blocks was a pre-commercial thinning of the 19-year stand in the 14-acre clear cut block This study started in 1981 put in five treatment levels leaving 100, 150, 200, 250, and 300 trees/acre and an uncut control plot in each of three blocks."
- PAST RESEARCH ... 8A.III ... pg 8A-19 ... "A commercial thinning of a well stocked 41-year old redwood stand near Whiskey Springs in 1970 provides some measure of the stand growth and regeneration growth 30 years after partial logging. The 12 plots in this study averaging 400 sq ft of basal area were then thinned from below leaving three plots of 100, 200, and 300 sq ft, and three uncut control plots."

Appendix 11:

PAST - TIMBER or WATERSHED or RESEARCH ... pg 9 ... " The South Fork had road construction beginning in 1967 with 6.8 km road build within 61 m (200 ft) of the stream. Between 1971 and 1973, single tree and small group selection silviculture was used with ground-lead tractor logging for the entire SF watershed. Approximately 65 percent of the timber volume was removed. (Henry 1998). The North Fork was harvested between 1985 and 1992, clear cutting approximately 50 percent of the watershed, primarily with cable yarding systems."

